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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,218	02/05/2002	Wolfgang Schmutz	390-010641-US(PCT)	5544

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EXAMINER

BRAHAN, THOMAS J

ART UNIT	PAPER NUMBER
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3652

DATE MAILED: 02/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/009,218

Applicant(s)

SCHMUTZ ET AL.

Examiner

Thomas J. Brahan

Art Unit

3652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 16 is/are pending in the application.
- 4a) Of the above claim(s) 6 and 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-14 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 3652

1. Claims 6 and 7 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic claim. Applicant traversed the restriction (election) requirement in Paper No. 10. The traversal is on the grounds that the restriction is defective as no reason was given for the restriction. This is not found persuasive as applicant appears to have confused elections between different inventions with elections between different species. A species restriction, by definition, is between two species that are patently distinct from each other. Just a statement that there are claims drawn to two species which are patentably distinct from each other is sufficient for a restriction between two different species. The mutually exclusive claim limitations are sufficient reasons for showing of distinction. Especially in this application, as claim 1 is not even generic to both embodiments. Claim 1, at lines 5-8, recites the limitation "providing means by which a substrate cassette (12) accommodated under ultraclean room conditions in a box can be removed from a box or reintroduced into the box". However the embodiment of figure 3 does not have this feature and this embodiment is not readable on claim 1. The embodiment of figure 3 does not remove the cassettes from the boxes, it removes the wafers directly from the box, as thus the two embodiments are distinct and are not drawn to a single inventive concept. It is also unclear as to how applicant grouped the claims as listed at the bottom portion of page 10 of Paper No. 10, as it has claims 5 and 6 as readable on the embodiment of figure 3. It appears as though claims 6 and 7 are the claims drawn to the second embodiment. Claim 5 recites that the sluice door (that is part of the cassette box as per claim 3) is formed in the platform of the cassette box, which is a feature of the embodiment of figure 1, not figure 3. Applicant correctly lists claims 6 as specific to the non-elected species. Claim 7 is the other claim which is drawn to the second embodiment as it has the sluice door formed as part of the hood of the cassette box, which is door (67) of hood (64). The requirement is still deemed proper and is therefore made FINAL.

2. The drawings are objected to under 37 C.F.R. § 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the single row arrangement and the single column arrangement, recited with the alternative language of penultimate line of claim 1 must be shown, or the feature must be canceled from the claims. No new matter may be entered.

3. The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which applicant regards as his invention.

4. Claims 1-5, 8-14 and 16 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For example:

a. The claim structure used by applicant is not fully understood. It unclear as to whether the applicant is considering the first 11 lines of the claim as the acknowledged prior art (similar to a

Art Unit: 3652

preamble), with everything after the limitation "is hereby characterized in that" as the improvement portion (or body) of the claim.

b. It is unclear as to how the applicant is considering the invention as a "device for manipulating substrates", as put forth in the first two lines of claim 1. The claim as written is drawn to a device which is used in specific environment, an ultraclean workroom with a storage room. However the claim does not further limit the manipulating device, it further limits the environment, i.e. the storage room.

c. In claim 1, lines 12 and 13, the term "the boxes" lacks antecedent basis within the claims. Note that the claim provides a basis for a single box in line 7, but not for plural boxes.

d. In claim 1, lines 12-14, the limitation "the boxes accommodated in row and/or column arrangement on substantially the entire ultraclean workroom is not understood. The use of the term "and/or" has the limitation drawn to undisclosed combinations, such as arrangements with just a row or just a column.

e. In claim 3, line 4, the term "the cassette box" lacks antecedent basis within the claims. Claim 1 provides a bases for "a box" but not specifically for "a cassette box".

f. In claim 3, it is unclear as to what applicant is considering as the sluice door of the first embodiment. The second embodiment is shown as having a sluice door (18'), but no such door is shown in figure 1. Figure 1 only has the platform (63) of the cassette shown. Should another sealing means be shown at the top of the lifting device (47) as to close off the opening between the storage room and the ultraclean workroom when the cassette box (denoted as hood 64 in figure 1) is removed by the second manipulating device (31)?

g. In claim 3, it is unclear as to how applicant is considering the locking unit as formed by a component of the cassette box (13). The claim lists reference numeral (63) as this component. However reference numeral (63) is shown in the drawings as the platform of the cassette (12), not the platform of the cassette box (13).

h. In claim 9, it is unclear as to how the first manipulating device is being considered as provided between the working chambers. The drawings show the manipulating device located alongside the working chambers, not between them.

i. In claim 9, lines 4, the term "and/or the like procedures" renders the claim indefinite as it is unclear as to what procedures would be considered "or the like".

j. In claim 9, lines 4-7, the limitation "between which, and/or between these and the one or more sites of substrates cassettes, the first manipulating device (51) is provided" is not understood. The term "and/or" appears to have the beginning of limitation redundant, depending upon what element the "these" refers to.

k. In claim 9, lines 5 and 6, the limitation "the one or more sites of substrate cassettes" lacks antecedent basis within the claim.

l. Claim 11 appears to be redundantly claiming the row and/or column arrangement of claim 1.

Art Unit: 3652

m. In claim 11, the limitation "between which, and/or between the one or more locking units (18) of the sluice device (17), and/or between storage spaces (28, 29) and locking units (18), a second manipulating device (31) is provided" is not understood. The multiple use of the phrase "and/or" has the limitation claiming combinations (arrangements of elements) which are not disclosed in the specification or shown in the drawings.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

7. Claims 1-5, 8, 11-14 and 16, as best understood, are rejected under 35 U.S.C. § 102(b) as being anticipated by Iwai et al. Figure 11 of Iwai et al shows a device for manipulating substrates inside and outside of an ultraclean workroom (the room between wall 121 and wall 154 or the room between wall 120 and wall 154) with a storage room (at shelves 151) and a sluice device (at 163), the sluice device between the storage room and the ultraclean workroom, and providing means (163) by which a substrate cassette (C) accommodated under ultraclean room conditions in a box (114) can be removed from the box (114) or reintroduced into the box, and a first manipulating device (152) by means of which substrates can be placed in the cassette (C) and can be removed from the cassette, is here by characterized in that the storage room (at shelves 151) is adapted for holding a multiple number of the boxes accommodated in row and/or column arrangement substantially over the entire ultraclean workroom area (the area between wall 121 and wall 154).

The sluice device (at 163) has a locking unit formed with a component of the cassette box (its platform), as recited in claims 2, 3, and 5. The sluice device is arranged in a floor of the storage room and at a ceiling of the ultraclean workroom, as recited in claim 4. Note it also has the sluice device is in a recess of wall (154) as recited

Art Unit: 3652

in withdrawn claim 6. The sluice device has a lifting unit (163) as recited in claim 8. The storage room has a second manipulating device (118) with a linear guide (150), as recited in claim 11 and 12. The storage room has a closable input opening (113), as recited in claims 13 and 14. The first manipulating device (152) has a fork unit, as recited in claim 16.

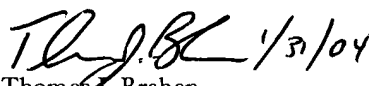
8. Claims 9 and 10, as best understood, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Iwai et al in view of Fuse et al or Takanabe et al. Iwai et al shows the basic claimed combination of cassette storage shelves located above an ultraclean workroom as detailed above. It varies from claim 9 by having one working chamber (101), not two or three. Fuse et al shows a similar wafer handler (60) passing wafers to a pair of processing units (40 and 80). Figure 4 of Takanabe et al shows a similar wafer handler (3) for a pair of processing units (100A and 100b). It would have been obvious to one of ordinary skill in the art to modify the wafer processing device of Iwai et al by having the first manipulating device (152) feeding wafers to two processing units, to increase production, as taught by Fuse et al or as taught by Takanabe et al. The manipulating devices of Iwai et al has a vertical linear guide, as recited in claim 10.

9. Wakamori et al, Kaneko et al, Muka and Komino et al are cited as showing cassette box storage areas located over ultraclean workrooms.

10. Applicant's remarks in the amendment filed November 19, 2003 have been fully considered, but are deemed moot in view of the above new rejections. The amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication should be directed to Thomas J. Brahan at telephone number (703) 380-2568. The examiner's supervisor, Eileen Lillis, can be reached at (703) 308-3248. The new fax number for all patent applications is (703) 872-9306.


Thomas J. Brahan
Primary Examiner
Art Unit 3652